

Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed August 23, 2004. The fee for addition of new claims is submitted herewith. A Petition for Extension of Time to Respond is also submitted herewith, together with the appropriate fee.

I. Summary of Examiners Rejections

Prior to the Office Action mailed August 23, 2004, Claims 1-52 were pending in the Application. In the Office Action mailed August 23, 2004, Claims 1, 25, 42, 43 and 51 were objected to for various informalities. Claims 1, 2, 4, 5, 7, 8, 11, 12, 15, 27, 28, 30, 31, 33, 37, 38 and 41 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 1, 26, 27 and 52 were rejected under 35 U.S.C. 102(b) as being anticipated by Brobst et al. (U.S. Patent No. 5,893,106, hereafter Brobst). Claims 2, 3, 11-14, 28, 29 and 37-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brobst in view of Hayes (U.S. Patent No. 6,006,279, hereafter Hayes). Claims 4-10, 18-25, 30-36 and 44-51 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brobst in view of Foody et al. (U.S. Patent No. 5,732,270, hereafter Foody). Claims 15, 17, 41 and 43 were rejected under U.S.C. 103(a) as being unpatentable over Brobst in view of Kukura et al. (U.S. Patent No. 6,633,923, hereafter Kukura). Claims 16 and 42 were objected to, but the Examiner indicated that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims, and to overcome any rejections under 35 U.S.C. 112.

II. Summary of Applicants' Amendment

The present Response amends Claims 1, 2, 5, 6, 7, 11, 12, 15, 20, 21, 25, 27, 28, 31-33, 37, 38, 41, 43, 46 and 51; cancels Claims 16 and 42; and adds new Claims 53 and 54, leaving for the Examiners present consideration Claims 1-15, 17-41, and 43-54. Reconsideration of the Application, as amended, is respectfully requested. Applicant reserves the right to prosecute any originally presented or canceled claims in a continuing or future application.

III. Claim Objections

In the Office Action mailed August 23, 2004, Claims 1, 25, 42, 43 and 51 were objected to for various informalities. Accordingly, Claims 1, 25, 42, 43 and 51 have been amended by the

present Response to correct these informalities. Reconsideration of the claims is respectfully requested.

IV. Claim Rejections under 35 U.S.C. § 112

In the Office Action mailed August 23, 2004, claims 1, 2, 4, 5, 7, 8, 11, 12, 15, 27, 28, 30, 31, 33, 37, 38 and 41 were rejected under U.S.C. 112, second paragraph, as being indefinite. Accordingly, Claims 1, 2, 4, 5, 7, 8, 11, 12, 15, 27, 28, 30, 31, 33, 37, 38 and 41 have been amended by the present Response to more clearly define the embodiments therein. Applicant respectfully submits that the claims now properly conform to the requirements of 35 U.S.C. 112, and reconsideration thereof is respectfully requested.

V. Claim Rejections under 35 U.S.C. § 102(b)

In the Office Action mailed August 23, 2004, claims 1, 26, 27 and 52 were rejected under 35 U.S.C. 102(b) as being anticipated by Brobst.

Claim 1

Claim 1 has been amended by the present Response to more clearly define the embodiment of the invention therein. As amended, Claim 1 defines:

1. *(Currently Amended) A framework architecture system for allowing a client application to communicate with a server component application, comprising:
a server having a server engine that provides client access to the server, said server engine further including
a server component that provides a service;
an implementation within said server component that provides functions of said service, wherein said implementation is dynamically linked and loaded into the server engine, so that the server engine is not reconfigured and recompiled; and,
an interface that allows a client application to access said implementation, wherein said interface is dynamically customized and loaded into the clients address space.*

Claim 1, as currently amended, defines a framework architecture system for allowing a client application to communicate with a server component application. The framework includes

a server having a server engine that provides client access to the server. The server engine further includes a server component that provides a service, and an implementation within said server component that provides functions of said service. The implementation is dynamically linked and loaded into the server engine. An interface allows a client application to access said implementation, wherein said interface is dynamically customized and loaded into the clients address space.

Brobst discloses an object oriented server process framework with interdependent-object creation. Brobst apparently discloses a framework which provides a set of objects that perform computer system server functions and that permit a framework user to add extensions for specific processing features. As disclosed in Brobst, a Server Main category comprises a method or methods that create the objects it is instructed to create, and provides the means for those objects to resolve any inter-dependencies with each other. In this way, all of the logic that provides server functioning is contained within the objects of the server program process, so that the means for resolving inter-dependencies comprises the methods and attributes of service objects. (Column 8, Lines 8-15). The SeverImpl.main() method makes appropriate calls to other objects and thereby retrieves appropriate configuration information and server functioning parameters to instantiate correct objects and ensure proper server start-up and functioning. (Column 8, Lines 19-24). The SMServerImpl class includes methods such as createServiceObjects(), a method that steps through a list of class names to create an SO object instance of each. (Column 9, Lines 4-9).

The above description suggests that, in Brobst, the Server Main method knows about the service objects at compile time, since it needs to step through a list of class names to create an SO object instance of each, which are needed to be compiled (i.e. linked) along with the SMServerImpl class. Hence the service object classes are linked at compile time, and cannot be linked at runtime.

However, in the embodiment of the invention as defined by Claim 1, as currently amended, the implementation within the server component is dynamically linked and loaded into the server engine, so that the server engine need not be reconfigured and recompiled. Furthermore, the server engine includes an interface that allows a client application to access said implementation, wherein said interface is dynamically customized and loaded into the clients address space. For example, in accordance with one embodiment the interface realization process includes locating the specified implementation, loading it into the caller's address space, and populating an internal table of pointers with the addresses of the plugin functions implementing the services defined by the corresponding interface.

The advantage of the features defined by Claim 1 include that additional application information can be added to, or modified within, the server application, and hence the system, without requiring a reconfiguration of the kernel.

In view of the above comments, Applicant respectfully submits that Claim 1 is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claim 27

Claim 27 has been amended similarly to Claim 1 to more clearly define the embodiment of the invention therein. It is respectfully submitted that Claim 26 is allowable for similar reasons, and further in view of the comments provided above, and reconsideration thereof is respectfully requested.

Claims 26 and 52

Claims 26 and 52 are not addressed separately but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim and further in view of the comments provided above. Applicant respectfully submits that Claims 26 and 52 are similarly neither anticipated by, nor obvious in view, of the cited references, and reconsideration thereof is respectfully requested.

It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant reserves the right to argue these limitations should it become necessary in the future.

VI. Claim Rejections under 35 U.S.C. § 103(a)

Claims 2, 3, 11-14, 28, 29 and 37-40

In the Office Action mailed August 23, 2004, Claims 2, 3, 11-14, 28, 29 and 37-40 were rejected as being unpatentable over Brobst in view of Hayes.

It is respectfully submitted that these claims are allowable as depending from an allowable independent claim and further in view of the comments provided above. In addition, Hayes discloses a plug-in module host framework. Hayes apparently discloses a framework that provides

a simple API to a client application through which the client application may access plug-in modules conforming to later-developed plug-in API's. The routines are offered to the client application via a DLL wrapper. Accordingly the developer of the client application does not require any knowledge of the host frame work. In addition, the routines need not be compiled into the client application. Therefore the client application is not recompiled in response to revisions to the host framework (Column 7, Lines 59-67).

The above description suggests that, in Hayes, the routines are client-based components, rather than server-based components as defined by the present claims. Furthermore, Hayes does not appear to disclose an interface that is dynamically customized. However, in the embodiments of the invention defined by Claims 2, 3, 11-14, 28, 29 and 37-40 the interface is dynamically customized and loaded into the clients address space.

In view of the above-described amendments and comments, and for similar reasons as provided above with respect to Claim 1, Applicant respectfully submits that Claims 2, 3, 11-14, 28, 29 and 37-40 are similarly neither anticipated by, nor obvious in view of, the cited references, and reconsideration thereof is respectfully requested.

Claims 4-10, 18-25, 30-36 and 44-51

In the Office Action mailed August 23, 2004, claims 4-10, 18-25, 30-36 and 44-51 were rejected as being unpatentable over Brobst in view of Foody.

Claims 4-10, 18-25, 30-36 and 44-51 are not addressed separately but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim and further in view of the comments provided above. Applicant respectfully submits that Claims 4-10, 18-25, 30-36 and 44-51 are similarly neither anticipated by, nor obvious in view, of the cited references, and reconsideration thereof is respectfully requested.

It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant reserves the right to argue these limitations should it become necessary in the future.

Claims 15, 17, 41 and 43

In the Office Action mailed August 23, 2004, claims 15, 17, 41 and 43 were rejected as being unpatentable over Brobst in view of Kukura.

Claims 15, 17, 41 and 43 are not addressed separately but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim and further in view of the comments provided above. Applicant respectfully submits that Claims 15, 17, 41 and 43 are similarly neither anticipated by, nor obvious in view, of the cited references, and reconsideration thereof is respectfully requested.

It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant reserves the right to argue these limitations should it become necessary in the future.

VII. Allowable Subject Matter

In the Office Action mailed August 23, 2004, Claims 16 and 42 were objected to, although the Examiner indicated that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims, and to overcome any rejections under 35 U.S.C. 112. Accordingly, Claims 16 and 42 have been canceled, and the subject matter defined therein is now presented as new Claims 53 and 54 respectively. Applicant respectfully submits that Claims 53 and 54 should be allowable, and consideration thereof is respectfully requested.

VIII. Conclusion

In view of the above amendments and remarks, it is respectfully submitted that all of the Claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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